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Art Unit: 1623

In the Claims:

Please cancel claims 1, 4-10, 16-19, 24-27, 31, 34-63, 65, and 104-129, and add the following new claims 112-144:

112. (New) A non-invasive method for facilitating the diagnosis of a subject for a matrix metalloproteinase –associated (MMP-associated)) cancer, comprising:

obtaining a urine sample from a subject;
detecting the presence or absence of a matrix metalloproteinase in the urine sample; and
correlating the presence or absence of the matrix metalloproteinase with the presence or absence of the MMP-associated cancer, thereby facilitating the diagnosis of the subject for the MMP-associated cancer.

113. (New) A non-invasive method using at least one biological marker to monitor the prognosis or diagnosis of a subject for a matrix metalloproteinase –associated (MMP-associated) cancer, comprising:

obtaining a urine sample from a subject; and
monitoring the prognosis or diagnosis of the subject for an MMP-associated cancer using at least one biological marker including a matrix metalloproteinase selected for its association with the cancer.

114. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is organ-confined prostate cancer.

115. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is metastatic prostate cancer.

116. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is in cells of epithelial origin.

117. (New) The method of claim 112 or 113, wherein the MMP-associated cancer appears in cells of mesodermal origin.

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118. (New) The method of claim 112 or 113, wherein the MMP-associated cancer appears in cells of endodermal origin.

119. (New) The method of claim 112 or 113, wherein the MMP-associated cancer affects cells of bone or of hematopoietic origin.

120. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is a cancer of the nervous system.

121. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is a breast cancer

122. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is a retina cancer.

123. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is a lung cancer.

124. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is a skin cancer

125. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is a kidney cancer.

126. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is a liver cancer.

127. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is a pancreatic cancer

128. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is a cancer of the genito-urinary or gastrointestinal tract.

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129. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is bladder cancer.

130. (New) The method of claim 112 or 113, wherein the MMP-associated cancer is a lymphoma.

131. (New) The method of claim 112 or 113, wherein the matrix metalloproteinase is a proenzyme.

132. (New) The method of claim 112 or 113, further comprising removal of low molecular weight contaminants from the urine prior to the detection step.

133. (New) The method of claim 112 or 113, wherein the urine is dialyzed.

134. (New) The method of claim 112 or 113, wherein the subject has previously been treated surgically or hormonally.

135. (New) The method of claim 112 or 113, wherein the subject has been treated to block testosterone.

136. (New) The method of claim 112 or 113, wherein the matrix metalloproteinase is a gelatinase.

137. (New) The method of claim 112 or 113, wherein the matrix metalloproteinase has a molecular weight of approximately 72 kDa.

138. (New) The method of claim 112 or 113, wherein the matrix metalloproteinase has a molecular weight of approximately 92 kDa.

139. (New) The method of claim 112 or 113, wherein the matrix metalloproteinase has a molecular weight of approximately 150 kDa.

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140. (New) The method of claim 112 or 113, wherein the matrix metalloproteinase is detected or monitored electrophoretically.

141. (New) The method of claim 140, wherein the electrophoretic pattern is a zymogram.

142. (New) The method of claim 112 or 113, wherein the matrix metalloproteinase is detected or monitored immunochemically.

143. (New) The method of claim 142, wherein matrix metalloproteinase is detected or monitored by a radio-immune assay.

144. (New) The method of claim 142, wherein the matrix metalloproteinase is detected or monitored by an enzyme-linked immunosorbant assay.